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DEPARTMENT OF THE ARMY

OFFICE OF THE ADJUTANT GENERAL WASHINGTON D.C. 20310

IN REPLY REFER TO

AGAM-P (M) (6 May 69)

FOR OT UT 691169

12 May 1969

SUBJECT: Operational Report - Lessons Learned, Headquarters, 54th Signal Battalion, Period Ending 31 January 1969

85319

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DEPARTMENT OF THE ARMY Headquarters, 54th Signal Battalion (Corps) APO US Forces 96350

AVFA-SB

15 February 1969

SUBJECT: Operational Report of 54th Signal Battalion (Corps) for Period Ending 31 January 1969, RCS CSFOR-65 (R1).

TO:

SEE DISTRIBUTION

- 1. Section 1. Significant Organization Activities.
 - a. Ceneral.
- (1) During the past quarter, the 54th Signal Battalion (Corps) continued to supply command and control communications for I Field Force Headquarters. This support included High Frequency Radio Teletype, Single Sideband Radio (Voice), Communications Center Operations, Switchboard facilities, Very High Frequency Radio (Multichannel), FM Radio-Wire Integration, Photographic services, and Air and Ground Messanger service. The battalion continues to operate an AM and FM radio station, broadcasting taped music. The MARS station, in providing services to I FFORCEV and other personnel in the Nha Trang area, completed 932 phone patches to the United States. The battalion continues to support combat operations within II Corps Tactical Zone with 18 operating detachments providing command and control communications between I Field Force Headquarters and units under its operational control.
- (2) The 54th Signal Pattalion remains organized under TOE 11-15D. However, proposed "G" series MTO & E has been submitted and is pending DA approval. Battalion organizational chart and listing of key personnel are attached as Inclosures 1 and 2.
 - b. Intelligence. Negative.
 - c. Operations and Training Activities.
 - (1) Plans. Negative.
 - (2) Operations.
- (a) <u>Communications Support for the 173rd Airborne Brigade</u>. The bat talion continues support of the 173rd Abn Bde with a communications center, high frequency radio teletype, single sideband voice, and two 12 channel VHF systems: V11, V12 (LZ English-An Khe). On 17 December, the 167th Signal Company (RR) provided a 12 channel VHF system (V-44) in support of the 173rd Airborne Bde between

FOR OT UT

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Inclosure

firebase Larry and An Khe. This system continued operation until 28 January 69 To support a 173rd request for more trunking capability between LZ English and An Khe, the battalion demodulated the V12 system at An Khe, providing two additional trunk circuits. Previously, V12 was relayed at Hon Cong Mtn and not demodulated. On 15 January, the battalion was tasked with providing a TRC-24 system with relay on Nui Ba Mountain (CQM61695) in support of the joint 173rd-Capitol ROK Division operation Darby Marsh II. This support continues. On 31 January, the detachment at Phu Hiep was inactivated due to the relocation of the supported unit.

- (b) Communications Support for Task Force South. The battalion continues to support Task Force South with high frequency radio teletype and single sideband voice communications linking I FFORCEV KQs with the Task Force HQs. The 3/506 and 3/503 Abn Inf Bns continue to be provided with 4 channel VN (MRC-112). Additional requirements during this reporting period for teletype communications between Task Force HQs and the advisors to the 44th and 53rd ARV Regt resulted in the deployment of one VSC-2 to Di Linh and one MCC-17 to Song Mao.
- (c) <u>Communications Support for 3/506th Inf Bn.</u> Support for the 3/506th Inf Bn at Phan Thiet continued. High frequency radio teletype, communication center operations, and single sideband voice radio were provided for communications between I FFORCEV HQs and the 3/506th Inf Bn. Communications to the province senior advisor, Binh Thuan Province, is provided by a 12 channel VHF system (V17) between Song Mao and Phan Thiet.
- (d) Communications Support for Company B. 5th Special Forces. The battalion continued its support for Company B, 5th Special Forces with secure teletype between Nha Trang and Pleiku.
- (e) <u>Communications Support for the 9th ROK Lisison Officer</u>. The battalion continued to provide secure communications to the I FFORCEV lisison officer with the 9th ROK at Ninh Hoa with high frequency radio teletype supplemented by single sideband voice communications.
- (f) Communications Support for the Capital ROK Liaison Officer. Support continued to the I FFORCEV liaison officer consisting of secure high frequency radio teletype and single sideband voice communications. Additional support was provided on 12 November when a radio team (AN/VRC-47) was deployed for FM communications between CRID LNO and US and ROK tactical units. This capability was again provided on 17 Jan 69.
- (g) <u>Communications Support at An Khe</u>. The 3rd platoon, 167th Signal Company (Radio Ralay) continues normal operations providing VHF multichannel radio communications between Pleiku and An Khe, and Vung Chua Mtn and LZ English On 4 January, the battalion installed a troposcatter terminal (TRC-97) at Hon Cong Mtn, completing the T-43 system between Nha Trang and An Khe.
- (h) Communications Support of Ath Infantry Division. The 167th Signal Company (Radio Relay) continued support of the 4th Inf Division at Pleika with VHF communications between Pleika and Dak To for the entire quarter. A relay continues to operate at the Dak To MACV Compound.

- (i) <u>Communications Support for DSA II Corps</u>. The battalion continued to support DSA II Corps with high frequency radio secure teletype.
- (J) <u>Miscellaneous</u>. During this reporting period, two troposcatter (TRC-97) systems were established to further enhance command and control communications in the II Corps Tactical Zone. The first system, T42, is terminated at Hon Tro Island in the Nha Trang area and Dragon Mtn in the Pleiku area. The second system, T43, is terminated at Hon Tre Island and Hon Cong Mtn in the An Kho area. The establishment of these systems has given OPCON units in those areas more direct communications links to HQ, I FFORCEV and provides improved capability for alternate routing, thus reducing circuit vulnerability. With the establishment of the T43 system, the VHF radio relay site at Vung Ro Bay was no longer required and inactivated on 16 January 1969.

(k) Continuing Battalion Projects.

- 1. Modernization of Facilities (Sites). The site improvement program has been continued during the past quarter resulting in improved operations and defense posture at the two largest detachments, Det 11 LZ English and Det 10 at Phan Thiet. Improvement efforts are now underway for the sites located at the Capitol and 9th Republic of Korea Divisions.
- 2. Installation of High Gain OE-15 Antennas. Although started in this reporting period, the installation of the high gain OE-15 antennas on existing TRC-24 systems will continue into the next quarter. To date, two systems V-17 (Song Mac-Phan Thiet) and V68 (Vung Chua Mtn-Hon Cong Mtn) are operating with OE-15 antennas. It is planned to convert two more systems to the OE-15 antennas, V74 (Pleiku-Dak To) and V11 (Hon Cong Mtn-LZ English), during the next quarter.
- 3. Quality Control of II Corps Tactical Zono Telephone Service The battalion continues to conduct a daily survey of selected telephone circuits as reported in the ORLL for the period ending 31 October 1968. Results of this program continue to be very favorable. Circuit reliability and quality has shown a steady increase since initiation of this program.

(3) Training.

(a) Inter-Battalien Reduced Distance Training Exercises. To insure that continued reliable communications capability is maintained, a series of unan nounced reduced distance training exercises are conducted. These exercises are considered essential due to the rapid turnover of personnel and the necessity for comprehensive team training.

(b) Non-Battalion Formal Training Conducted During the Last Guarter

COURSE	LENGIH	# ATTENDED	TOTAL HRS
ln/trc-97B	80 h r	28	2240
Cable Splicing	80 hr	10	800

△N/TRC-24	80	hr		10	800
Tal Key System Maintenance	80	hr		2	160
AN/GRC-50 Maintenance	80	hr		1	80
W/CRC-106 Maintenance	120	hr		1	120
1N/CRC-106 Operations	60	hr		2	120
Circuit Restoration	48	hr		_2	96
			ELIAT OT	56	4416

⁽⁴⁾ Chemical. Negative.

d. Logistics.

(1) Supply.

⁽c) The following major and items of COMEL equipment were received during the quarter:

I Pro V	OTY
Extended Rango Antenna Kit OE-15	7
Radio Set AN/PRC-77	2
Telephone Central Office Op .N/MTC-10 '	2

⁽d) Two each OH-64 Light Observation Helicopter (LOH) were receive from USA AMMC, APO 96309.

⁽²⁾ Transportation. Operational commitments required extensive use of transportation during the quarter. The total amounts of cargo transported to detachments operated by this unit are as follows:

An Khe	5.3 tons
Ban Mc Thuot East	2.7 tons
Do Lat	3.5 tons
LZ English	1.4 tons

⁽⁵⁾ PSYMAR. In support of the PSYMAR program, the battalion operates a high frequency radio broadcast station for HQ, II Corps (ANN).

⁽a) This unit has requested direct exchange of 23 items through the Glosed Loop Support Program during this quarter; to date, two each TT-76's have been exchanged.

⁽b) Telephone coordination with Cam Ranh Dopot to improve Closed Loop Support has been made with minimal results as of this reporting date.

Nha Trang		7.5 tons
Phu Cat		4.5 tons
Phan Thiet		19.0 tons
Pleiku		6.5 tons
Qui Nhon		14.0 tons
Song Mao		9.9 tons
Tuy Hoa		12.2 tons
	TOTAL	86.5 tons

c. Civil Affairs.

- (1) Company B continues its support of the Avo Maria Orphanage and the 167th Signal Co (RR) continues to support the Pleiku Province Hospital and the 620th ARVN Signal Bn Dependents School.
- (2) On 24 December 68, a Christmas party was sponsored for the dependent children of the 5th Railway Security Battalion (ARWN).
 - (3) Approximate summary of statistics.
 - (a) Man Days: 61
 - (b) Voluntary Monetary Contributions: 544,760 VN
 - (c) Scrap Lumber (Board Fest): 14,600
 - (d) Surplus Food: 8,000 lbs
 - (e) Milk: 700 gals
 - (f) Clothing: 230 lbs

f. Chaplain.

- (1) In the past quarter, both general Protestant and Roman Catholic services have been held in the battalion chapel each Sunday. The names of Jewish personnel have been given to the Jewish Chaplain (I FFORCEV). A schedule of the time and places for Jewish and other donominational services is posted on bulletin board in the battalion area. At the various field sites, coverage was furnished by are the state.
- (2) Character guidance was given on a regular monthly basis. HHC and Copany B once a month and Company A twice a month to accompant shift workers.

g. Personnel.

(1) Rest & Recreation. During the last quarter the battalion received 230 R&R allocations from I FTORCEV and utilized 153.

(2) Courts & Bourds.

(a) The battalion commander acts as Special Court-Martial Convenientationity for the 54th Sig Bn (Corps), to include all attached units and the callisted mon of:

HIC, I FFORCEV Hq Battery, I FFORCEV Arty 297th Trans Co (Car) 272nd Military Police Co 13th Military History Det 11th Public Information Det 55th MI Det 64th Engineer Det 41st Civil Affairs Co 5th Public Information Det

Additionally, the battalion commander acts as a Field Grade Commander with respect to Article 15 actions and appeals to Article 15 actions for all the above units loss H_Q Battery, I FFORCEV Artillery.

- (b) Non-Judicial Punishment. A total of 78 Article 15's wore administered. Of them, 16 were Field Grade Article 15's. There were 5 appeals to Article 15 actions.
- (c) Summary Court-Martials. Fifteen Summary Court-Martials were convened during the quarter. One Summary Court-Martial is pending.
- (d) Special Court-Martials. A total of 7 Special Court-Martials were convened during the quarter. Two Special Court-Martials are pending.
- (3) Emergency Leaves. Seven emergency leaves were granted during the quarter.

(4) Promotions & Vacancies.

November	E 4	<u>E5</u>	<u>E6</u>	E7	<u>P8</u>	E2
Vacancies	97	67	0	2	0	0
Promotions	109	26	0	1	0	0
December					•	
Vacancies	0	43	0	1	0	0
Promotions	54	29	3	0	0	0
January						
Vacancies	12	87	1	2	1	O
Promotions	42	21	0	0	0	0

- h. Artillery. Negative.
- i. Communications Scatistics.
 - (1) Communications Center and HF RATT Operations.
 - (a) Total average daily transmissions (sent & received).

	Novomber	December	January
Landlino	598	859	816
RATT	40	40	41

(b) Average handling timo (in minutes) for all originating and to minating messages by precedence.

		mber	Dece	mber	Jan	lary
	Orig	Term	Orig	Term	Orig	Term
Flash	44	5	35	3	29	5
Imodiate	289	13	209	12	165	12
Priority	429	11	306	15	268	12
Routine	3 96	15	375	14	291	13

(c) Precedence of total transmissions in percentages.

	November	December	January
Flash	7.4	9.1	9.5
Immediate	47.4	40.6	41.6
Priority	34.7	33.6	34.8
Routine	10.6	16.7	14.1

(2) Switchboard Operations (Typhoon, Typhoon TOC).

	November	December	January
Total Typhoon Subscribers	216	220	437
Total Typhoon Trunks	59	6 2	59
Total Typhoon TOC Subscribers	36	32	34

Total Typhoon TOC Truids	30	30	29
Average Daily Peg Count	3214	2696	3121
Average Pick-Up Time (sec)	2.1	2,2	2.1

*Due to charge in accounting procedures of including party line subscribers.

(3) MARS Operations.

	November	December	January
Phone Patchos Attompted	32 9	425	526
Phone Patches Completed	226	353	353
Mars Grams	24	40	30

(4) Photographic Operations. The following figures represent the workload for the pictorial section during the quarter.

	November	December	Jenuary
Number of negatives exposed	6966	6595	6227
Number of prints ande	11545	11856	11759
Number of color slides made	685	900	1194
Number of fest motion picture film exposed	0	800	0

j. Aviation Activities.

(1) Aviation operations continued as Air Mossenger Support to I FFORCE. Headquarters and administration, logistics, and operational air support to the 54th Signal Battalion (Corps). During the period, a total of eight (8) aircraft were assigned: three UH-1D's, two OH-6A's, three U-1A's. The section flew a total of 1617 sorties.

The following information reflects aircraft status and flying hours for the past quarter:

AIRCRAFT STATUS AND FLYING HOURS

Type	Serial Number	Hours Flown	OM*	FM*	EDP*	Availability
U-1.4	55-3301	53	29	0	179	70%
U-1.4	55-3307	134	3	3	94	6 7%
U-1.4	57-6134	63	39	71	0	52%
UH-1.D	66-1033	140	59	64	36	57%
UH-1.D	66-1096	94	20	91	43	34%

UH-1D	64-13696		132	13	103	46	53 %
0H-61	67-16499		51				100%
OH-6:	67-16522			ra ga			100%
	•	TOTALS	667	163			

 k_{\star} . See Inclosure 4 for Chronology of battalium activities and operations for the period of this report.

- 2. Section 2. Lessons Learned
 - a. Personnel. Negative.
 - b. Operations.
 - (1) Improvement of Tandem Circuits.
- (a) OBSERVATION. Many of the circuits in II CTZ are routed over two or more VHF or Tropospheric Scatter systems. Often the quality of these patched circuits is degraded and below systems capability.
- (b) EVALUATION. Many 31M personnel install 2-wire straps in the absence of 5B-611 or SB-675 patching facilities. In 2-wire mode, AN/TCC-7 channel input is Ø dBm and output is -3 dBm, so that the circuit is half the strength it should be without considering the effective loss due to channel noise. Then channel gain is increased to compensate for the loss, hybrid coil oscillation can result. To prevent this, personnel have been instructed in the logic and mechanics of 4-wire strap techniques. In the absence of -5 dB patch cords, operators are instructed to adjust channel output to -5 dB on the test meter. The effect is to reduce the 4-wire output of the TCC-7 to -4 dBm, which is the proper level for 4-wire mode of operation.
- (c) RECOMMENDATION. That the U.S. Army Southeastern Signal School increase emphasis on 4-wire patch-through techniques in the 31M course, and that in-country units with TCC-7 or TCC-3 equipment emphasize correct 4-wire patch techniques.
 - (2) OE-15 Extended Range Antenna Kit.
- (a) OBSERVATION. The OE-15 corner-reflector type of entenna is supplied with RG-189/u coaxial cable for use in connecting the antenna to the TRC-2. In some instances, high reflected power readings have been experienced.
- (b) EVILUATION. Substitution of RG-8/u for RG-189/u has shown tha B- and G-band frequencies below 300 mHz appear to respond better to the RG-8/u. The RG-189/u appears to have better transmission characteristics at the higher operating frequencies.
- (c) RECOMMENDATION. That RG-8/u be considered for use on OE-15 in stallations for B- and C-band frequencies that display high reflected power with RG-189/u.
 - (3) AN/TRC-97B Line Voltage Protection.
- (a) OBSERVATION. During a recent power failure and change-over to standby power, a TRC-97B received an input voltage considerably in excess of recommended value. This resulted in a damaged 70 mHz oscillator and A21A2 voltage regulator.

- (b) EV.LU.TION. The overload dumage could have been prevented by more critical adjustment of the line voltage protection meter. The adjustment on the free of this meter set high and low circuit breakers on the 208v input circuit. The indicators should be set within 5 volts of the indicated 120v.
- (c) RECOMMENDATION. That organizations utilizing the TRC-97 emphasize procedures that insure voltage limits are carefully adjusted.
 - (4) TA-236 Handsot Replacement.
- (a) OBSERVATION. High environmental noise conditions in radio operations areas have been noted to cause pickup by the transmitter elements of TA-236/FT Telephone Sets when these phones are used for MARS or RMI calls.
- (b) EVALUATION. Experience indicates that replacement of TA-236/handsets with "butterfly" handsets, such as the HS-101 utilized by the AN/TCC-'order-wire panel, eliminate the pickup of background noise by the telephone circuit during the time the telephone user is listening to the distant subscriber This has reduced the need for repetition of transmissions from the radio operations area and results in improved operating efficiency.
- (c) RECOMMENDATION. That "butterfly" type handset be considered for use with TA-236/FT telephones in areas where environmental noise is high an RWI operation is required.
 - c. Training. Negative.
 - d. Intelligence. Negative.
 - e. Logistics. Negative.
 - f. Organization. Nogative.
 - g. Other. Nagative

4 Incl - Incl 2 thru 4 w/d, Hq, DA CARL D. BROADENT
as LTC, SigC

Commanding

CG. I FFORCEV, ATTN; AVFA-CC-OT, APO 96350 (four conclusion)

CINCUSARPAC, ATTN: CPOP-MH, APO 96558 (two conclusion)

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ivn Sec Chaplain

Inclosure 1

AVFA-GC-OT (15 Feb 69) 1st Ind SUBJECT: Operational Report of 54th Signal Battalion (Corps) for Period Ending 31 January 1969, RGS CSFOR-65 (R1)

DA, Headquarters, I Field Force Vietnam, APO 96350 25 FEB 1969

TO: Commanding General, United States Army Vietnam, ATTN: AVHGC-DST, APO 96375

This headquarters has reviewed subject report and concurs with its content.

FOR THE COMMANDER:

SAMES F GARLAND
CPT, AGE
Assi AG

Cy furn: 2 - ACSFOR, DA 1 - 54th Sig Bn AVECU-EST (15 Feb 69) 2d Ind SU SECT: Operational Report of 54th Signal Battalion (Corps) for Period Ending 31 January 1969, PCS CSFOR-65 (R1)

HEADOUARTERS, UNITED STATES ARMY, VIETNAM, APO San Francisco 96375 19 WAR1989

*THRU: Commanding General, United States Army, STRATCOM-PAG, APO 96557 M

- TO: Commander in Chief, United States Army, Pacific, ATTN: GPOP-DT, APO 96558
- 1. This headquarters has reviewed the Operational Report-Lessons Learned for the quarterly period ending 31 January 1969 from Headquarters, 54th Signal Battalion (Corps).

2. Comments follow:

- a. Reference item concerning Improvement of Tandem Circuits, page 10, paragraph 2b(1); concur. Operator training in the meticulous line-up of channels will compensate for the lack of patch cords with five decibel pads. Recommend USCONARC consider increased emphasis on four-wire patch-through techniques in the 31M course at the US Army Southeastern Signal School.
- b. Reference item concerning CE-15 Extended Range Antenna Kit, page 10, paragraph 2b(2); nonconcur at this time. Previous experience does not indicate that the RG-189/U coaxial cable has poor response on the B and C bands. An ECCM-V representative will visit the unit and study the problem. Results will be forwarded to the unit.
- c. Reference item concerning TA-236/FT Handset Replacement, page 11, paragraph 2b(4); concur that use of the HS-101 will reduce the amount of noise pickup in high environmental noise areas. This modification should have only limited application and is subject to the availability of the HS-101 handset.

FOR THE COMMANDER:

W. C. ARMI

CPT, AGC //
Assistant Adjutant General

Cy furn: 54th Sig Bn I FFV GPOP-DT (15 Feb 69) 3d Ind

SUBJECT: Operational Report of HQ, 54th Sig Bn (Corps) for Period Ending 31 January 1969, RCS CSFOR-65 (R1)

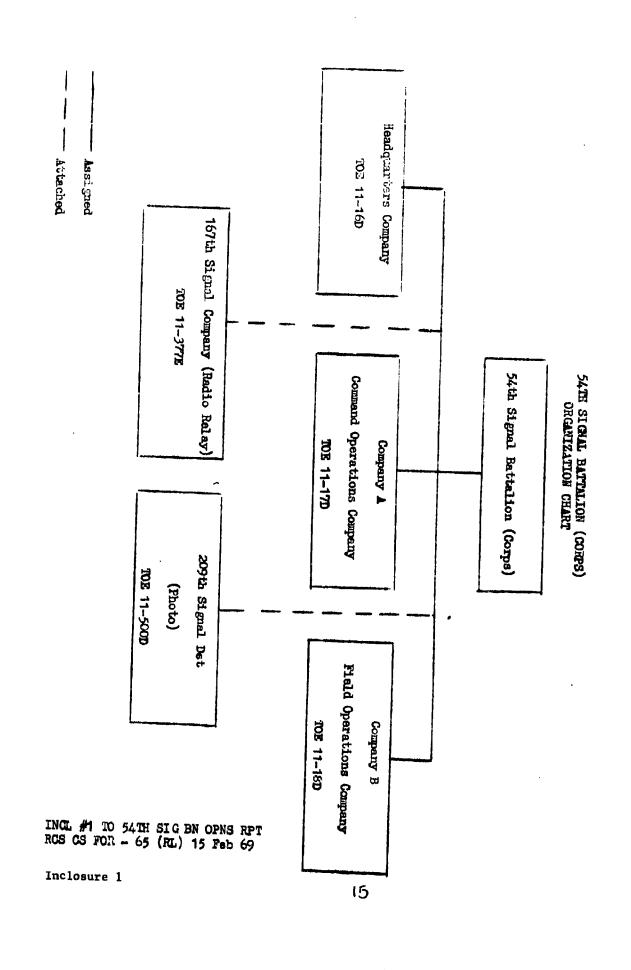
HQ, US Army, Pacific, APO San Francisco 96558 2 3 APR 1969

TO: Assistant Chief of Staff for Force Development, Department of the Army, Washington, D. C. 20310

This headquarters has evaluated subject report and forwarding indorsements and concurs in the report as indorsed.

FOR THE COMMANDER IN CHIEF:

C. I. SHORTT CPT, AGC Asst AG



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Experiences of unit engaged in counterinsus. Authoris (First name, middle initial, last name)	rgency opera	icions.				
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